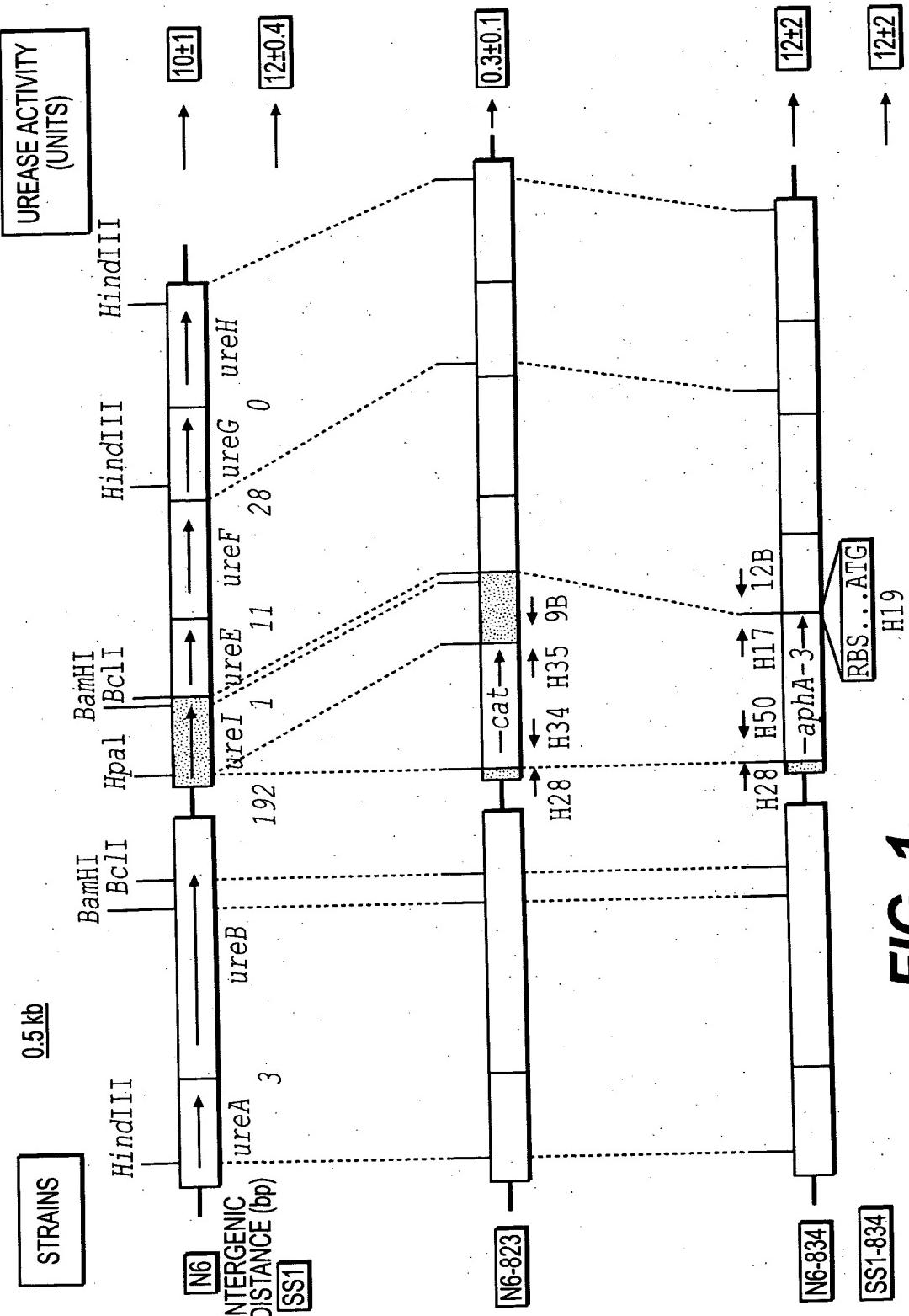


# Replacement Sheet



**FIG. 1**

## Replacement Sheet

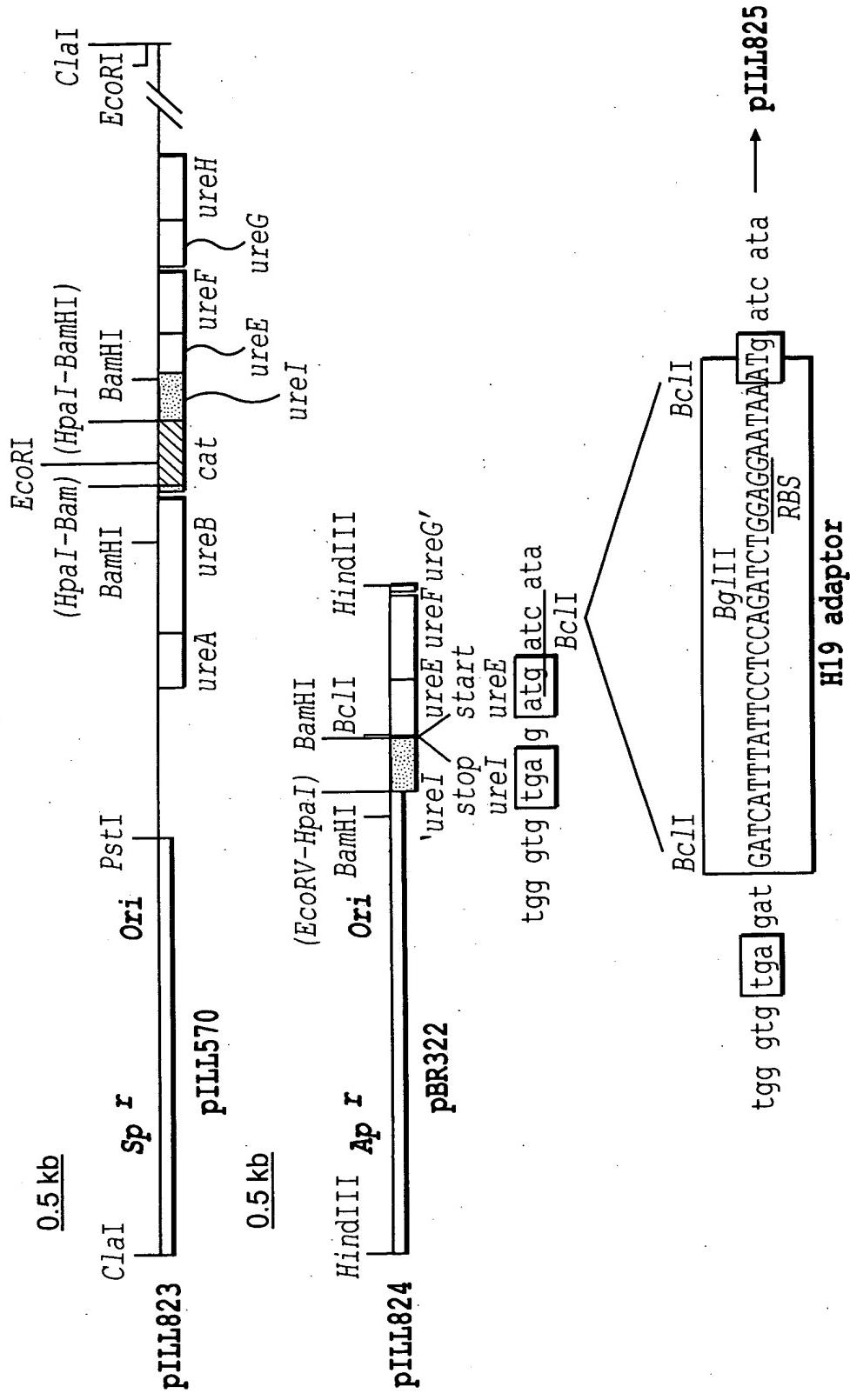
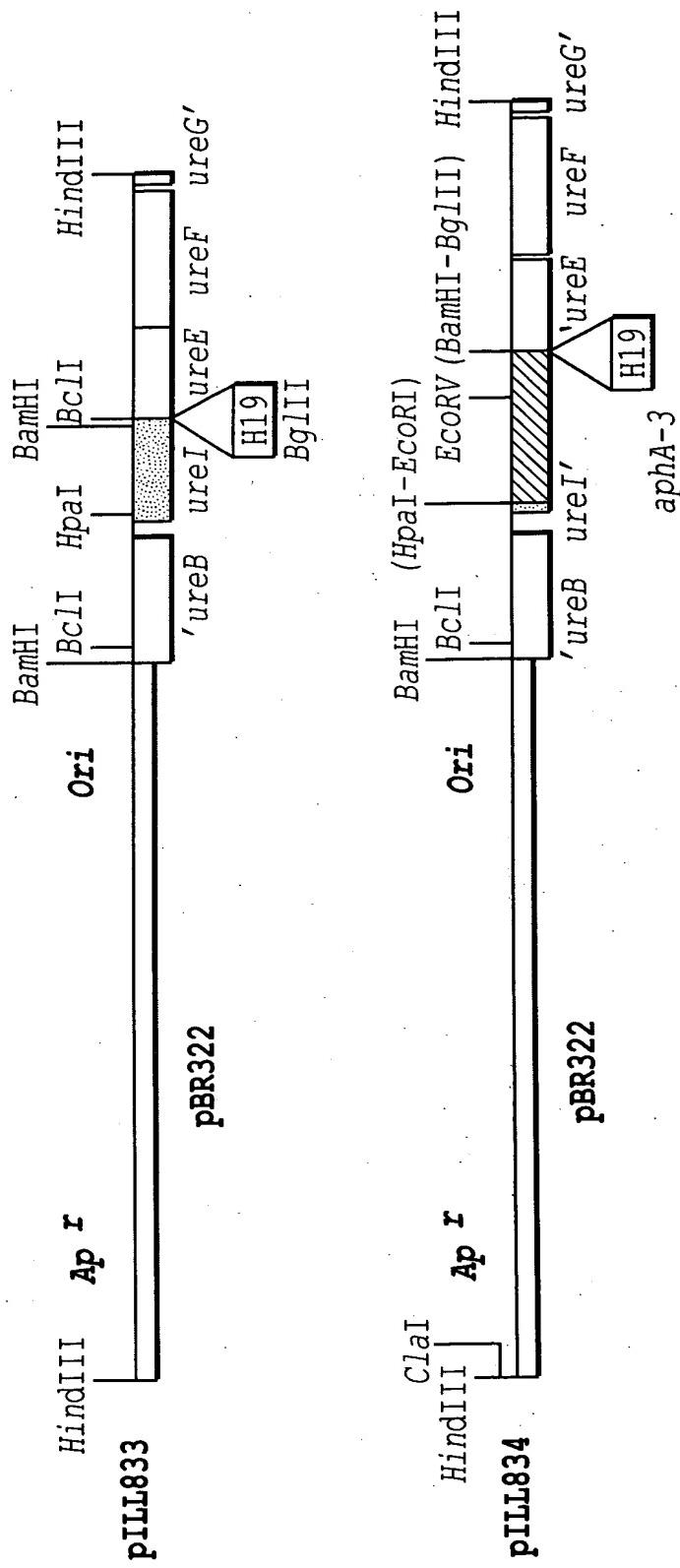
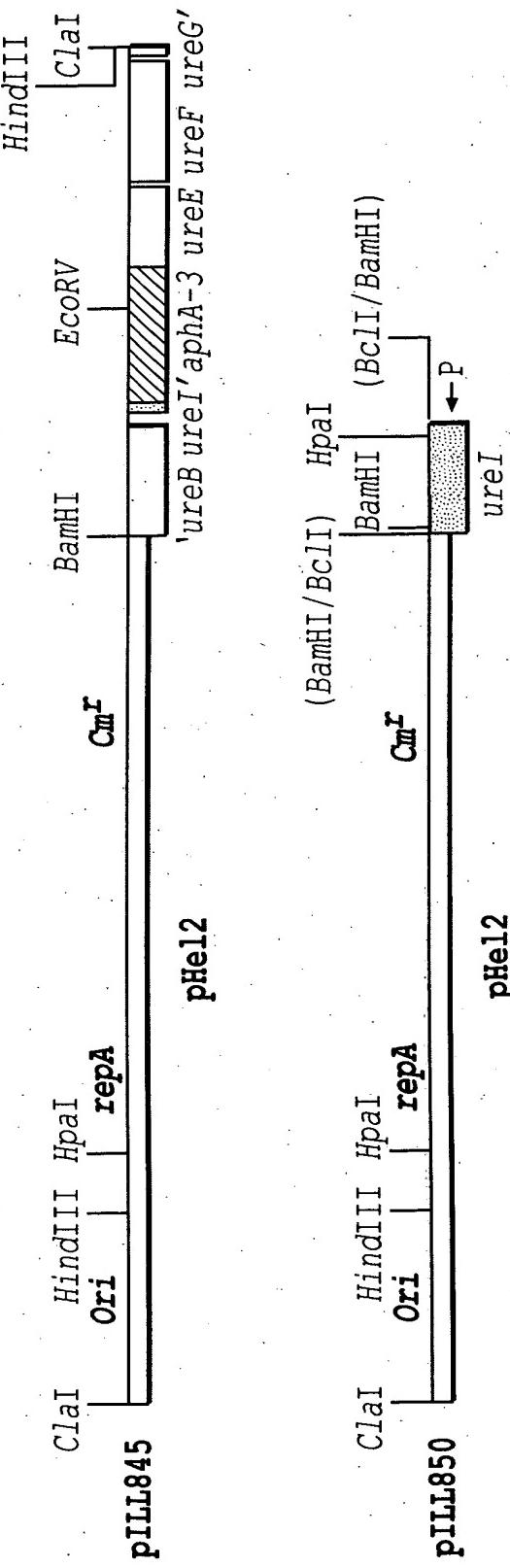


FIG. 2A1

## Replacement Sheet



## Replacement Sheet



**FIG. 2B**

## Replacement Sheet

		IN	OUT	IN	OUT
Urel-Hp		M G L V [L Y V G [V I S N G [C G L [T K V D P K S T A V M N F F V G G C L S I I C N V . W V I 48	T Y G E A E D I A Q V S H H L T N F Y G P A T G L L F G F T Y L Y A A I N H T F 97		
Urel-HI		M G L V [L Y V G [V I S N G [C G L [T K V D P K S T A V M N F F V G G C L S I I C N V . W V I 48	S Y S T F H P T P P A T G P E D V A Q V S Q H L I N F Y G P A T G L L F G F T Y L Y A A I N H T F 98		
Urel-Lacto	1				
Urel-Streplo	1	M G G V G [L F Y V G A V L I I D G L M L L G R I S P R G A T P L N F F V G G L [Q V V T P T . V L I 48	E W F Y G S A T G L L F A F T Y L Y S A I N T I F 42		
AmiS-Myco	1	M G S V G [L L Y V G A V L F V N G L M L L G T V P V R S A S V L N L F V G A L [Q C V V P T . V M L 48	I F A A S G L Y L F G F T Y L W V A I N N V T 80		
AmiS-Rhod	1	M I G L V [L L Y V G A V L F L N A V W L L G K I S G R E V A V I N F L V G V L S A C V A F . Y L I 48	V L A A S G L Y L F G F T Y L Y V G L I S N L A 80		
AmiS-Pseudo	1		L K A G A I T L L F A F T Y L W V A I N Q F L 80		
Ural-Hp	49	T Y S A L N P T A P V E G A E D I A Q V S H H L T N F Y G P A T G L L F G F T Y L Y A A I N H T F 97			
Ural-HI	50	S Y S T F H P T P P A T G P E D V A Q V S Q H L I N F Y G P A T G L L F G F T Y L Y A A I N H T F 98			
Ural-Lacto	1				
Ural-Streplo	1	Y G A C T G O G A - - - - -	E W F Y G S A T G L L F A F T Y L Y S A I N T I F 42		
AmiS-Myco	49	L Q S G G D A A V - - - - -	I F A A S G L Y L F G F T Y L W V A I N N V T 80		
AmiS-Rhod	49	I Q A Q D S S A - - - - -	V L A A S G L Y L F G F T Y L Y V G L I S N L A 80		
AmiS-Pseudo	49	F S A A A Q Q G S - - - - -	L K A G A I T L L F A F T Y L W V A I N Q F L 80		
Ural-Hp	68	G L D W R P Y S M Y S L F V A I N T I P A I L S H Y S D A I L D H A I L G I T E G D M W A I W 140			
Ural-HI	99	N L D W K P Y G W Y C L F V I T I N T I P A I L S H Y S D A I L D H A I L G I T E G D M W A F W 147			
Ural-Lacto	1				
Ural-Streplo	1	D F D Q A R L Y G W F S L F V A I A A L G Y S W H A F T A E A D P A - - - - -	G Y G G N A M Y G I I W 62		
AmiS-Myco	43	D W D D G E G L G W F S L F V A I A A L G Y S W H A F T A E A D P A - - - - -	F G V I I W 116		
AmiS-Rhod	81	G F E P E G I G W F S L F V A C A A L V Y S F L S F T V S N D P V - - - - -	F G V I I W 116		
AmiS-Ps udo	81	E V D G K G I G W F C L F V S L T A C T V A I E S F A G A S Q P F - - - - -	G L M N A V N M 121		

**FIG. 3A**

## Replacement Sheet

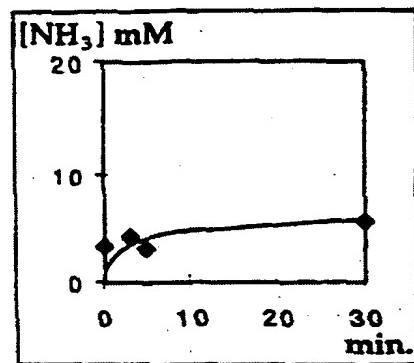
Urel-Hp	147	LAWGV	WLTAEIEN	I	KIP	GKFIPWMAI	LEGIL	TAWIPAM	LLF	OHW	194
Urel-Hf	148	LAWGV	WLTAEIEN	I	KIP	GKFIPWMAI	LEGIL	TAWIPAM	LLF	OHW	195
Urel-Lacto	1	-	-	-	-	-	-	-	-	-	44
Urel-Streplo	83	FLWGV	WLTAEIEN	I	KIP	GKFIPWMAI	LEGIL	TAWIPAM	LLF	OHW	130
AmIS-Myc0	118	FLWAV	WLTAEIEN	I	KIP	GKFIPWMAI	LEGIL	TAWIPAM	LLF	OHW	167
AmIS-Rhod	119	LAWAAL	WLTAEIEN	I	KIP	GKFIPWMAI	LEGIL	TAWIPAM	LLF	OHW	107
AmIS-Pseudo	122	TVWALL	WLTAEIEN	I	KIP	GKFIPWMAI	LEGIL	TAWIPAM	LLF	OHW	1nn
DUT											
Urel-Hp	195	V									196
Urel-Hf	198	S									196
Urel-Lacto	45	PN									47
Urel-Streplo	131	ETGPLPAAVVIAVIGFAAVVLAYP	I	GR	RLAAPSVTNPPAALAATT	TR					131
AmIS-Myc0	168	HTTPAVAAGWA	-	-	KA						213
AmIS-Rhod	168										206
AmIS-Pseudo	170										173

**FIG. 3B**

Replacement Sheet

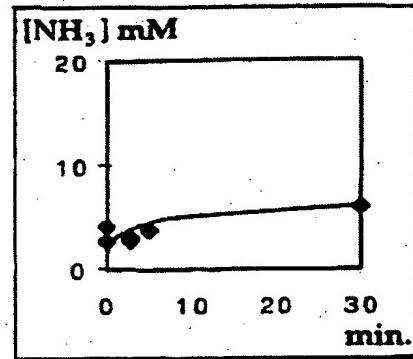
pH 7

Panel A :  
strain N6



**FIG. 4A1**

Panel B :  
N6-834  
( $\Delta urel$ )

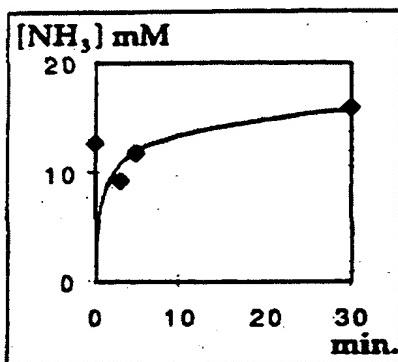


**FIG. 4A2**

Replacement Sheet

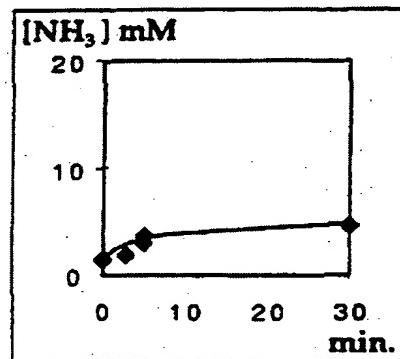
pH 5

Panel A :  
strain N6



**FIG. 4B1**

Panel B :  
N6-834  
(*Aurel* )

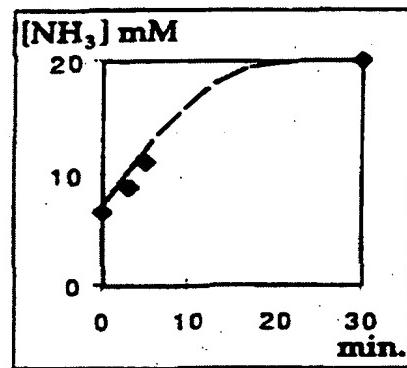


**FIG. 4B2**

Replacement Sheet

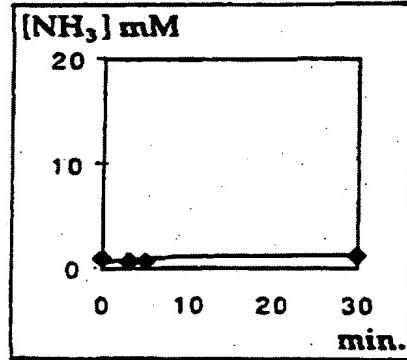
pH 2.2

Panel A :  
strain N6



**FIG. 4C1**

Panel B :  
N6-834  
(*Aurel*)



**FIG. 4C2**